

CLAIMS:

1. A time-stationary processor arranged for execution of a program, the processor comprising:
 - a plurality of execution units;
 - a register file accessible by the execution units;
 - 5 - a communication network for coupling the execution units and the register file;
 - a controller arranged for controlling the processor based on control information derived from the program,characterized in that the processor is further arranged to dynamically control the transfer of
10 result data from an execution unit of the plurality of execution units to the register file, based on the control information.
2. A processor according to claim 1, characterized in that the control information comprises a first identifier on the validity of an operation, and wherein the processor is
15 arranged to dynamically control writing of result data corresponding to the operation into the register file, based on the first identifier.
3. A processor according to claim 2, characterized in that the first identifier is delayed according to the pipeline of the corresponding execution unit arranged for executing
20 the operation.
4. A processor according to claim 1, characterized in that the execution unit is arranged to produce a second identifier on the validity of an output result of a corresponding output port of the execution unit, and wherein the processor is further arranged to
25 dynamically control writing of result data corresponding to the operation into the register file, based on both the first identifier and the second identifier.

5. A processor according to claim 4, characterized in that the processor is further arranged to dynamically control writing of result data corresponding to the operation into the register file, based on the first identifier, the second identifier and an input datum.

5 6. A processor according to claim 1, characterized in that the register file is a distributed register file.

7. A processor according to claim 1, characterized in that the communication network is a partially connected communication network.

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8. A method for controlling a time-stationary processor arranged for execution of a program, wherein the processor comprises:

- a plurality of execution units;
- a register file accessible by the execution units;
- 15 - a communication network for coupling the execution units and the register file;

- a controller arranged for controlling the processor based on control information derived from the program,

20 characterized in that the method for controlling comprises the step of dynamically controlling the transfer of result data from an execution unit of the plurality of execution units to the register file, using the control information.